TRI-STATE RADIO PLANNING COMMITTEE

REGIONAL PLANNING UPDATE COMMITTEE

800 MHz

FCC-REGION 8

Peter Meade, Chairman
Assistant Fire Marshal
Fire & Rescue Services
Nassau County Fire Commission
140 15th Street
Mineola, NY 11501

January 20, 2005 Filed Electronically

Ms. Marlene Dortch, Esq.
Secretary - Federal Communications Commission
445 12th Street, S.W.
Washington, DC 20554

Re: Petition for Reconsideration, WT Docket 02-55

Dear Ms. Dortch,

The Tri-State Radio Planning Committee (FCC Region 8) serving Northern NJ, Southern NY and Southwestern Connecticut ("Region 8") respectfully files a Petition for Reconsideration regarding the interim interference protection afforded NPSPAC licensees during the 800 MHz Rebanding period. Region 8 and the licensees they represent are concerned for the protection of public safety communications in the NPSPAC band during the transition process. This request for Reconsideration is predicated upon two new factors: (1) The FCC dismissed Regions 8's earlier comments[1] primarily because no supporting data was provided. Therefore supporting data will be provided here as requested by the Commission[2]. (2) Region 8 introduces the fact that much of the interference experienced to NPSPAC operations has been due to cellular operations above 824/869 MHz – services that are not affected by rebanding. These services should be providing maximum interference protection to public safety operations immediately. It should be noted that these levels of protection were already granted by the Commission in their July 2004 Order[3], before being rescinded in a subsequent decision[4].

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[1] December 2, 2004, Comments of Region 8, Tri- State 800 MHz Regional Planning Committee, Re: September 28, 2004 Written Ex Parte Presentation of Lawrence R. Krevor, Vice President-Government Affairs, Nextel Communications Incorporated ("NEXTEL") in regard to WT Docket No. 02-55

[2] WT Docket 02-55, SUPPLEMENTAL ORDER AND ORDER ON RECONSIDERATION, Para. 41 "We note that parties are free to contest our decision and persuade us that data show otherwise."

[3] *WT Docket 02-55, REPORT AND ORDER, FIFTH REPORT AND ORDER, FOURTH MEMORANDUM OPINION AND ORDER, AND ORDER, Adopted: July 8, 2004 Released: August 6, 2004*

[4] *WT Docket 02-55, SUPPLEMENTAL ORDER AND ORDER ON RECONSIDERATION, Adopted: December 22, 2004, Released: December 22, 2004*

Nextel claims the interference protection criteria for protecting Public Safety Class A receivers to a signal level of -101/-104 dBm for portables and mobiles respectively, was specifically designed for a post reconfiguration de-interleaved spectrum environment. While these levels were negotiated for post rebanding, they are in fact necessary to achieve a minimum mean signal level (50% reliability) in Public Safety Class-A receiver[5]. This protection level is based on public safety's need to meet its operational requirements using Class A receivers in the absence of CMRS interference.

Current Regional systems such as that used by the Port Authority of New York and New Jersey operate at these coverage levels on a day to day basis. However, as seen in the attachments, changing protection levels from -101 to -85 dBm in the interim rebanding period would result in a loss of interference protection to over one-third of the entire system coverage area. This is unacceptable for protection of public safety operations. Also note that when wedded to Regional NPSPAC coordination procedures (with co-channel interference contours defined at 5 dBu), the -101 dBm levels provide over 78% noise-limited coverage reliability at a Delivered Audio Quality of 3.0[6], with reductions to 66% only when a co-channel NPSPAC station is active (See Table 1). These reliabilities quickly degrade under out-of-band interference from either Nextel or the Cellular carriers.

Table 1: Reliability at -101 dBm Mean Dipole Receive Levels

ENBW (Noise Bandwidth of Receiver IF Filter, kHz)	15.00	→ NPSPAC Receiver
Receiver Noise Figure (dB)	8.00	
Ambient Noise Floor Rise / Site Noise (dB)	0.00	
Receiver Noise Floor (dBm)	-124.24	
Thermal Noise Floor (dBm)	-132.24	
Mean Receive Power Level (dBm), 1/2 Wave Dipole	-101.00	→ Mobile Case, with 8 dB lognormal shadowing
Margin For Increased Confidence (dB)	0.00	
Antenna Adjustment (dB)	1.00	
Lognormal Sigma, S and I (dB)	8.00	
Noise Margin (dB)	6.24	
Noise Reliability	78.23%	
Interferer Level (dBm)	-129.00	→ NPSPAC Coordination
Number of Interferers	1.00	
Faded S/(N+I) for DAQ Level (dB)	18.00	→ Average of EDACS Analog and Digital, NPSPAC at 3.0 DAQ
Meq, Equivalent, Interference Only, dBm	-128.00	
Interference Margin (dB)	10.00	
Interference Probability	18.84%	
Meq, Equivalent (N+I), dBm	-122.71	
S/(I+N) Margin, dB	4.71	
Noise and Interference Reliability	66.15%	
Inverse Joint Probability of Noise and Interference	12.07%	

[5] TIA refers to a Class-A receiver as the high performance version

[6] General reference to Telecommunications Industry Association technical Services Bulletin, *TSB-88: Recommended Parameters for Technology Independent System Performance Modeling*, with specific reference to *Table A-1 Projected VCPC Requirements for Different DAQs*

Nextel has stated that CMRS carriers cannot meet the -101/-104 dBm interference protection standards during the reconfiguration transition period, during which 800 MHz CMRS, public safety and private wireless channels will remain interleaved. Since the NPSPAC band in not interleaved with CMRS we feel this interference protection standard can be achieved in the NPSPAC band. Additionally we also note that much of the interference experienced by NPSPAC users has been due to interference from cellular services above 824/869 MHz – services that would not be affected by the rebanding process.

We again agree with Nextel's comments that the transition period interference protection standards should protect the operational integrity of public safety communications systems. The FCC is still required to obtain active participation of both NEXTEL and cellular licensees in mitigating their contribution to CMRS-public safety interference. We urge the Commission to reconsider the interim NPSPAC interference protection levels, and reinforce that public safety communications are a priority at all times.

In the Commission's 2004 Order[7], it was clear that the FCC intended to adopt a comprehensive and two-pronged solution to the 800 MHz interference issues that have and continue to plague Public Safety operations. This Order contained well-defined near-term "best practices" and interference definition and abatement procedures, as well as long-term rebanding as a solution to the core interference issues. We again stress that circumventing the interference protection levels essentially nullifies the near term solution – and clearly runs contrary to the Commission's intent. Again we stress that the NPSPAC (821-824/866-869 MHz) band is not interleaved with CMRS spectrum as is the Old Block spectrum beginning at 806/851 MHz. Region 8 remains concerned that Public Safety licensees in the NPSPAC band must be protected during the transition. Protection during the transition cannot be diminished from what is presently required for their systems. To do otherwise will result in a severe adverse impact upon public safety communications and the safety of public safety personnel and the public they serve.

Thus, it is the respectful request of this RPC that rules specified at § 22.970 and § 90.672, as adopted in Commission's July 2004 order should be reinstated. In addition to clarifying

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[7] *REPORT AND ORDER, FIFTH REPORT AND ORDER, FOURTH MEMORANDUM OPINION AND ORDER, AND ORDER, Adopted: July 8, 2004 Released: August 6, 2004 Para. (4): "we conclude that the most effective solution to the public safety interference problem in the 800 MHz band is a Commission-derived plan, which is comprised of both long-term and short-term components. As the short-term vehicle by which we ensure a more effective response to the ongoing interference problem, we implement technical standards defining unacceptable interference in the 800 MHz band as well as procedures detailing who bears responsibility for abating this interference and what steps responsible parties must take.", and Para. (10): "In the first prong of this Report and Order, we take a number of steps to provide for immediate abatement of interference to 800 MHz band public safety and other non-cellular systems: • We adopt a new, objective definition of "unacceptable interference," for purposes of this proceeding only, to determine when public safety and other non-cellular 800 MHz band licensees are entitled to interference protection. • We assign strict responsibility for eliminating unacceptable interference to the ESMR or cellular telephone operator(s) implicated in the interference occurrence, and assign joint responsibility to all involved commercial operators if unacceptable interference results from a combination of signals from multiple systems. • We require ESMR and cellular telephone licensees, on request, to notify public safety and CII licensees prior to activating new or modified cells, and require public safety and CII licensees receiving such information to notify ESMR and cellular telephone licensees of changes in system parameters"*

interference protection for public safety, we urge the Commission not to allow further delay in this proceeding.

Respectfully submitted,

Peter W. Meade
Chairman, Region 8

Attachment(s):

(1) Port Authority of New York / New Jersey Coverage Measurements – Narrative

(2) Port Authority of New York / New Jersey Coverage Measurements – Raw Data

cc:

Mr. John Muleta, Chief, Wireless Telecommunications Bureau

Mr. Michael Wilhelm, Chief, Public Safety & Critical Infrastructure Division